

1.5MHz, 1A High Efficiency Buck Converter

Features

- Input voltage: 2.5V ~5.5V
- High efficiency (95%)
- No Schottky Diode Required
- 1A Output Current at 5V Input 3.3V Output
- 1.5MHz Switching Frequency
- Built-in ON/OFF Function
- Low Dropout Operation: 100% Duty Cycle
- Thermal Protection
- Tiny 6-Lead TDFN2X2 Package
- RoHS Compliant

Applications

- Mobile Phones
- Wireless and DSL modems
- Power Supply for Portable Devices

General Description

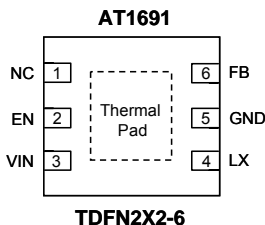
The AT1691 provides complete control for a DC/DC converter optimized for high-performance microprocessor applications. It is operated on current mode architecture for excellent line and load transient response. 1.5MHz operation frequency is allowing the use of small surface mount inductor and capacitor. The internal synchronous switch increases efficiency and eliminates the need for an external Schottky diode. The AT1691 is a family of low-noise synchronous step-down DC/DC converters that is ideally suited for systems powered from a 1-cell Li-ion battery or from a 3-cell to 4-cell NiCd, NiMH, or alkaline battery. It can also be used to USB-Based power system.

Ordering Information

ORDER NUMBER	MARKING	OUTPUT VOLTAGE (V)	TEMP. RANGE	PACKAGE (Green)
AT1691RB1U	A161	Adjustable	-40°C~ +85°C	TDFN2X2-6

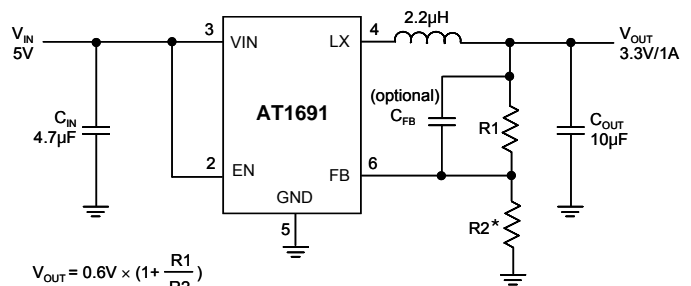
Note: RB: TDFN2X2-6
1: Bonding Code
U: Tape & Reel

Pin Configuration



Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

Typical Application Circuit



$$V_{OUT} = 0.6V \times \left(1 + \frac{R1}{R2}\right)$$

*R2= 150K for stability consideration.